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BUILDING FOR CLEAN WATER 1965

Federal Water Pollution Control Administration
Washington, D. C.

1965

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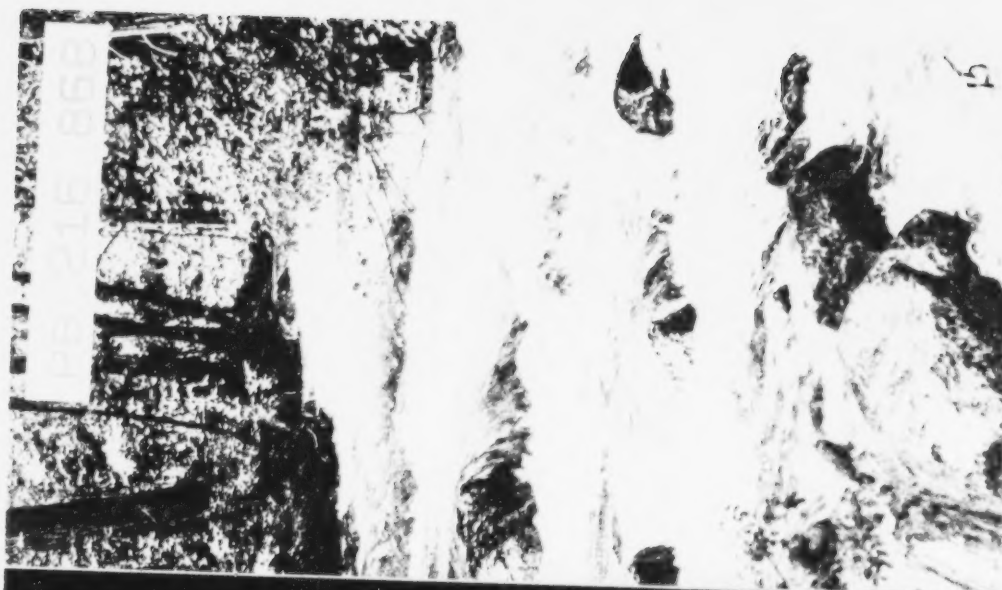
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Building for CLEAN WATER 1965

A Report on Federal Incentive Grants for Municipal Waste Treatment
AND FUTURE CONSTRUCTION NEEDS

Federal Water Pollution Control Administration

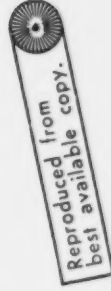


" . . . To improve the quality of our waters will require the fullest cooperation of our State and local governments. Working together, we can and will preserve and increase one of our most valuable natural resources—clean water."

PRESIDENT LYNDON B. JOHNSON
in his Congressional Message on Natural Beauty—
February 8, 1965

Building for CLEAN WATER 1965

A Report on Federal Incentive Grants for Municipal Waste Treatment
AND FUTURE CONSTRUCTION NEEDS



FEDERAL WATER POLLUTION CONTROL ADMINISTRATION
WASHINGTON D C

How Federal Incentive Grants Work

THE increasing tempo of urbanization, the rapid advances of industrial technology with its exotic by-products, coupled with the ever increasing population of the United States is causing a steady increase in waste discharged from municipal sewers. This great volume of municipal wastes is a major factor in the water pollution problem that faces the Nation.

Failure to build sewage treatment facilities fast enough to keep up with the needs of new people, new housing, and expanding industry compound the problem. Daily, the untreated or inadequately treated wastes from many towns and cities are needlessly pouring into the rivers and streams of the Nation.

DISCRIMINATION PROHIBITED—Title VI of the Civil Rights Act of 1964 states: "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving Federal financial assistance." Therefore, the waste treatment works program, like every program or activity receiving financial assistance from the Federal Water Pollution Control Administration, must be operated in compliance with this law.

Federal Aid Helps Meet the Problem

Every city and town is responsible for cleaning up the pollution it creates. One objective of the Federal Water Pollution Control Act passed by Congress in 1956 and strongly amended in 1961 and 1965 was to help communities meet this responsibility. This law authorizes Federal grants to municipalities to assist them in the construction of sewage treatment works.

How Much Federal Aid is Available

Present authorizations call for appropriations of \$150 million a year through fiscal year 1967. The first \$100 million of the annual appropriation is allotted among the States on the basis of their population and per capita income. All sums in excess of \$100 million are allotted on the basis of population only. The Federal Government will pay from the State's allotment up to 30 percent of the estimated reasonable cost of the construction of a municipal sewage treatment works, or \$1,200,000, whichever is smaller. Projects serving more than one municipality can receive a maximum Federal grant of \$4,800,000. These grants may be higher if the States match the Federal money.

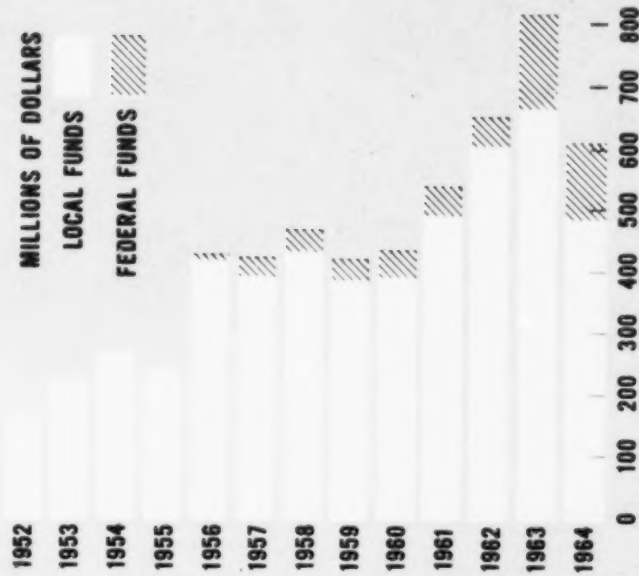
Who May Apply For Grants?

Federal grants are made to municipalities to help them finance the construction of sewage treatment works to prevent the discharge of untreated or inadequately treated wastes into any waters. A municipality is defined in the Act as "any city, town, borough, county, parish, or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes."

Eligible works include new sewage treatment plants, additions or extensions, alterations, acquisitions, improvements or remodeling of existing treatment plants, and related appurtenances.

The sewage treatment construction grants are administered by the Federal Water Pollution Control Administration and the State water pollution control agencies. Application forms and related material should be obtained from the State agency. There are certain basic requirements which a construction project must meet, however, in order to qualify for a Federal grant. The processing of applications is greatly facilitated if they are first discussed with the State agency to obtain the specific information and guidance needed. The State agencies are listed on the back cover of this booklet.

**SEWAGE TREATMENT PLANT CONSTRUCTION
1956-1964 (Calendar Years)**



The Record

In its 6-year history, supplemented in 1962 and 1963 by the Public Works Acceleration Program, the Federal construction grants program has materially advanced the construction of municipal waste treatment facilities. During the five years preceding the enactment of legislation authorizing the program, municipal governments were investing \$297 million annually in the construction of sewage treatment facilities.

With the advent of the program, municipal construction increased 51 percent to an annual average of \$434 million. The amendments to the Federal Water Pollution Control Act in 1961 had a similar effect. The annual average rate of construction of municipal waste treatment facilities increased an additional 63 percent to an annual average rate of \$657 million; which is 146 percent greater than the pre-program level. The effect of the 1963 amendments will become evident in about one year.

The Federal program of incentive grants to municipalities has assisted 6,200 communities to undertake the construction of sewage treatment facilities. These projects represent contributions of \$659 million by the Federal government, and \$2,436 million by State and local governments. This is a ratio of about \$3.75 in State and local funds to each Federal dollar.

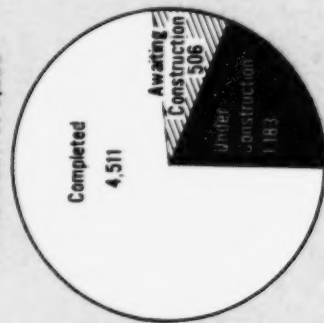
Upon completion, these projects will serve over 53 million people and improve the quality of the water in over 55,000 miles of the Nation's streams and rivers.

During 1964 a total of 583 projects estimated to cost \$407 million were approved for grants amounting to \$83 million under the Federal Water Pollution Control Act.

INCENTIVE GRANTS 1956 to June 30, 1965

TOTAL GRANTS: 6,200

TOTAL COST: \$3,145 MILLION



Population Served:

• 53 MILLION

Streams Improved:

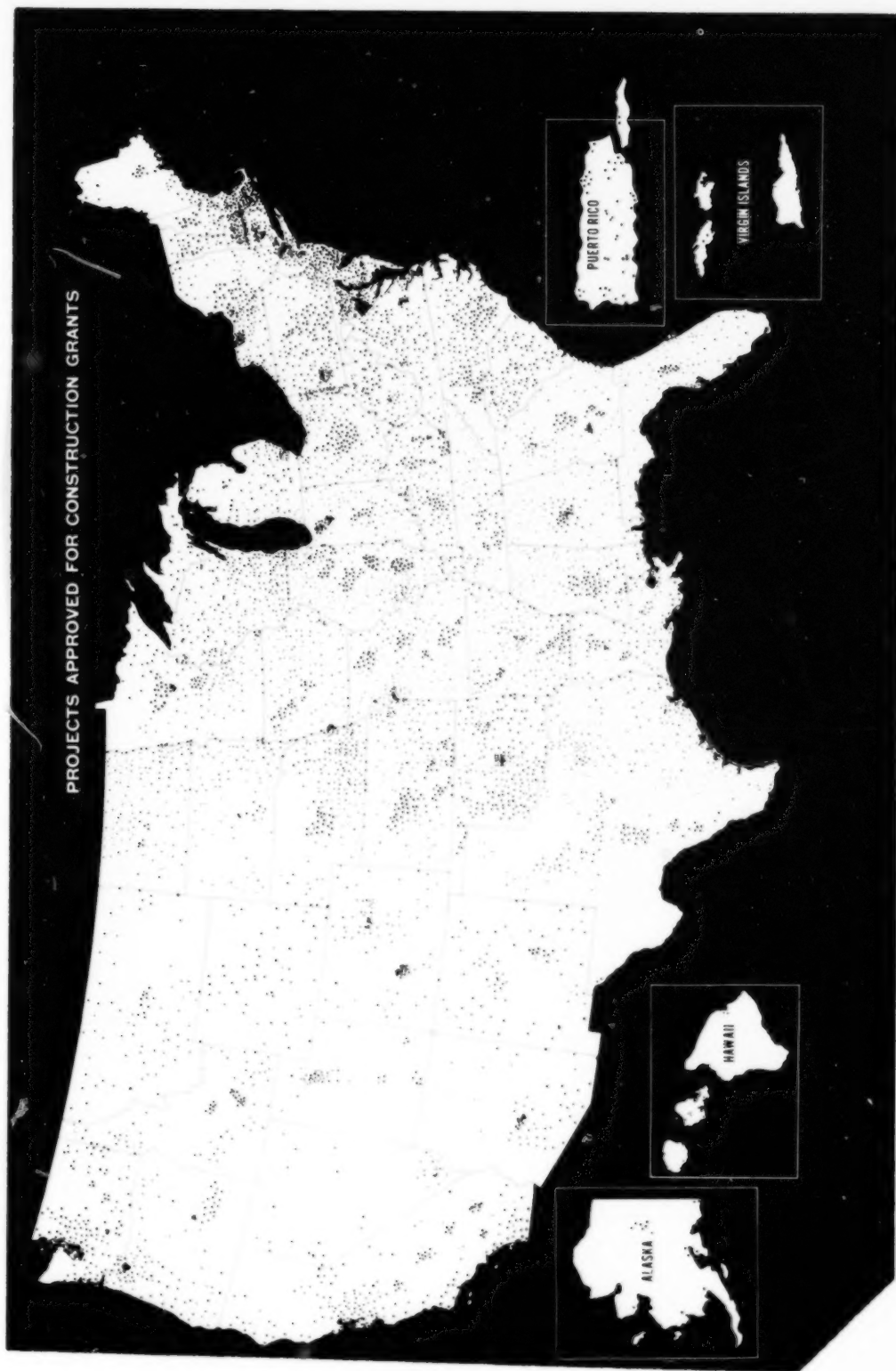
• 55,000 MILES

State Allocations for Municipal Grants, Fiscal Year 1965

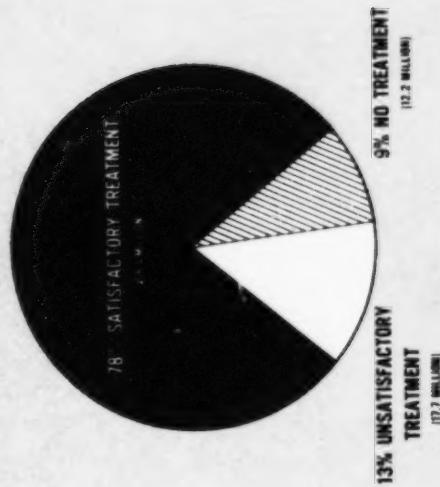
Allocations totaling \$100 million were made to the 50 States, the District of Columbia, and the three territories by Federal Government under the Water Pollution Control Act for the construction of municipal sewage treatment facilities. The funds are allocated to the States on the basis of relative population and per capita income. Funds remaining unused six months after the end of the fiscal year for which they were appropriated are lost.

STATES	ALLOTMENTS	STATES	ALLOTMENTS
Alabama	\$2,121,800	Montana	\$1,086,850
Alaska	745,500	Nebraska	1,237,850
Arizona	1,256,850	Nevada	696,450
Arkansas	1,779,550	New Hampshire	1,030,600
California	4,979,850	New Jersey	2,333,100
Colorado	1,272,400	New Mexico	1,280,500
Connecticut	1,318,000	New York	5,263,600
Delaware	711,550	North Carolina	2,373,800
District of Columbia	808,450	North Dakota	1,161,700
Florida	2,286,350	Ohio	3,454,200
Georgia	2,188,400	Oklahoma	1,625,600
Guam	1,514,950	Oregon	1,300,900
Hawaii	959,650	Pennsylvania	3,914,200
Idaho	1,185,200	Puerto Rico	2,142,800
Illinois	3,446,800	Rhode Island	1,046,150
Indiana	2,099,100	South Carolina	1,922,400
Iowa	1,633,650	South Dakota	1,150,650
Kansas	1,466,200	Tennessee	2,117,650
Kentucky	1,967,200	Texas	3,572,550
Louisiana	2,011,050	Utah	1,173,000
Maine	1,244,400	Vermont	1,055,350
Maryland	1,597,600	Virginia	2,050,150
Massachusetts	2,113,200	Virgin Islands	1,505,350
Michigan	2,939,550	Washington	1,558,500
Minnesota	1,793,100	West Virginia	1,571,050
Mississippi	2,095,650	Wisconsin	1,919,800
Missouri	1,993,800	Wyoming	925,450
TOTAL STATE ALLOTMENTS FOR FISCAL YEAR 1965		----- \$100,000,000	

PROJECTS APPROVED FOR CONSTRUCTION GRANTS



POPULATION SERVED BY MUNICIPAL SEWER SYSTEMS*—1965



*Estimated 1965 sewer population 138 million.

Status of Municipal Waste Treatment

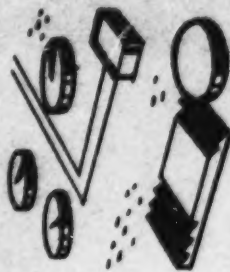
Two out of every three people in the United States are served by municipal sewage systems. Progress has been made in providing these 136 million people with adequate waste treatment facilities. Currently, 91 percent of the population live in houses connected to systems providing some degree of sewage treatment.

However, existing treatment for a population of 17.7 million is inadequate, and wastes from another 12.2 million are discharged raw, without treatment. Treatment of the discharges from the communities providing no treatment or inadequate treatment, continues to be a major water pollution control problem and must be eliminated.

Present Needs

The 1965 survey by the Conference of State Sanitary Engineers disclosed that the backlog of municipal waste treatment needs now involves 5,277 communities, having a total population of 3.3 million. These communities need new sewage treatment plants, plant enlargement, or additional treatment estimated to cost \$1.8 billion including necessary ancillary works. Included in this need are 2,598 unsewered communities with population totaling 5.0 million which need sewage collection systems as well as treatment facilities. This survey included only those municipalities with serious treatment needs at the present time. There is an additional need by those communities that already have treatment facilities but need to extend their interceptors to provide treatment for new areas. There are no accurate estimates of the amount of this need but it is probably sizeable.

BACKLOG OF REQUIRED TREATMENT WORKS



NEW PLANTS NEEDED **4,433**

18.4 MILLION POPULATION SERVED



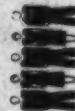
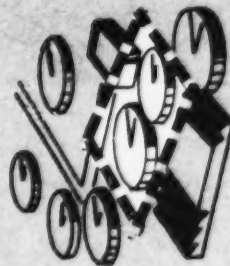
ENLARGEMENTS **488**

10 MILLION POPULATION SERVED



ADDITIONAL TREATMENT **356**

5 MILLION POPULATION SERVED

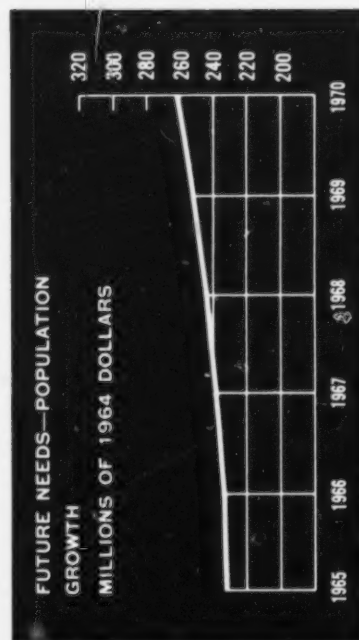


Future Needs—Obsolescence of Existing Facilities

Municipal waste treatment works now in operation will eventually have to be replaced due to their limited life span, technological advancement, or population relocation. Failure to replace these plants as required will substantially impede the national effort to maintain control over the water pollution problem. The estimated annual average cost for the replacement of these facilities will gradually increase to at least \$300 million by 1970.



FUTURE NEEDS—POPULATION GROWTH
MILLIONS OF 1964 DOLLARS



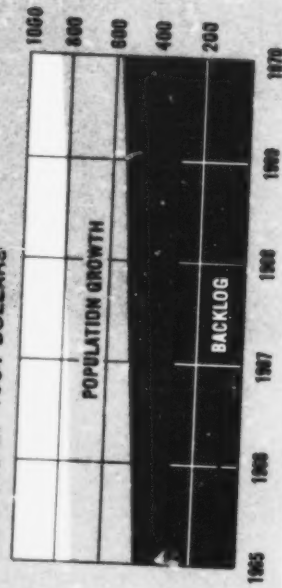
Future Needs—Population Growth

As the population of the United States continues to increase at a rate of over 3 million people per year, adequate waste treatment facilities must be provided for them if we are to stay abreast of the water pollution control problem. The estimated annual average cost of providing adequate facilities for this population growth will exceed \$260 million by 1970.

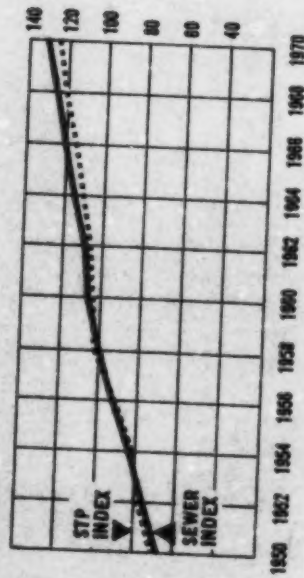
Total Needs—Current Dollars

An analysis of the situation shows that even using the most conservative estimate of the present backlog we shall need to spend at least \$800 million per year if we are to eliminate the backlog while keeping current on needs occasioned by obsolescence and population growth. If the backlog is larger as many suspect, this needed annual expenditure could be considerably larger.

**CONSTRUCTION COSTS—
MILLIONS OF 1964 DOLLARS**



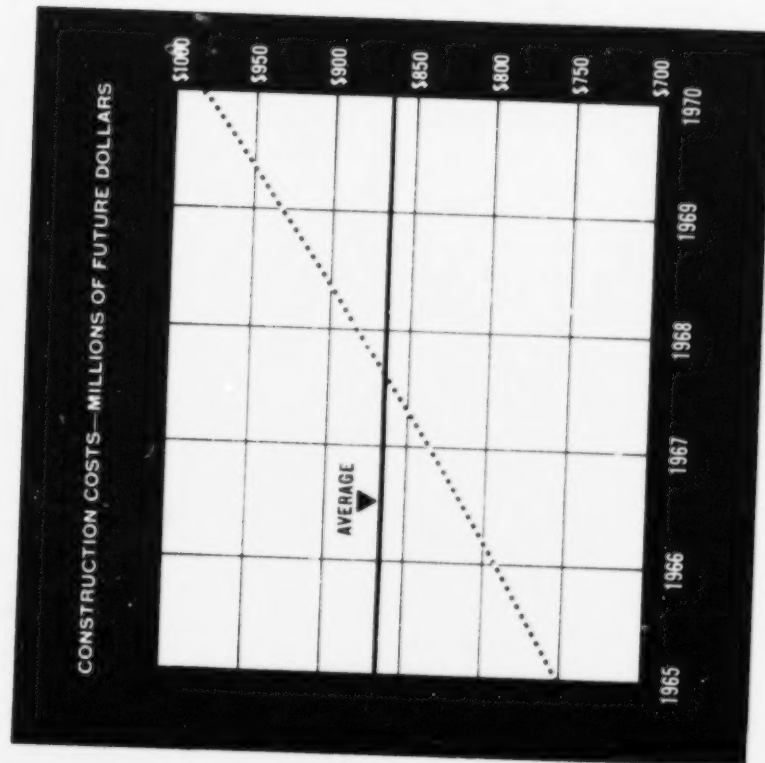
RISING COSTS



Rising Costs

Construction costs have risen steadily since the mid-1940's. In order to measure this rise in the sewerage field, two construction cost indexes are used. They are the Public Health Service Sewage Treatment Plant and Sewer Construction Cost Indexes.

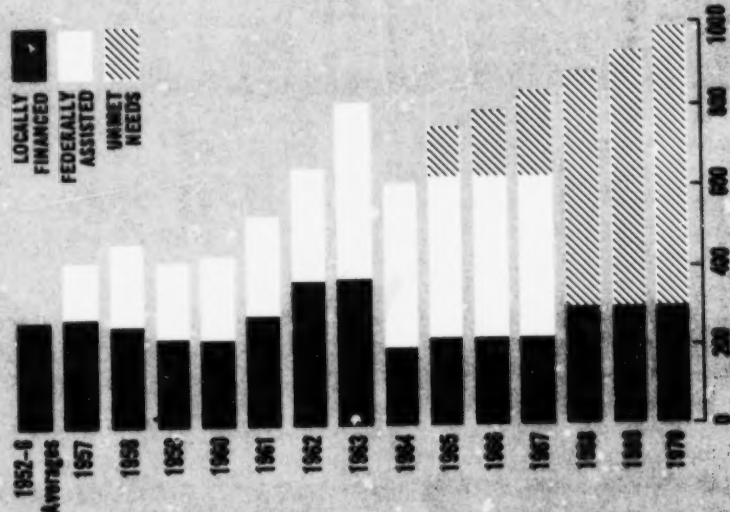
For the purpose of estimating the probable actual cost of the needed facilities, these indexes have been projected through the end of the present decade.



Total Needs—Future Dollars

Annual construction rates required to eliminate the backlog of needed municipal waste treatment works and provide for continuing obsolescence and population growth for the balance of this decade have been estimated in terms of today's construction costs. The actual costs, however, will be higher because of the steady upward trend of construction costs. By using the Cost Indexes these estimates have been projected through 1970, with the result that the actual average annual expenditure for this period of time is estimated to be \$865 million in lieu of the \$800 million in 1964 dollars.

CONSTRUCTION COSTS—MILLIONS OF DOLLARS



Federal Aid

The authorization of Federal Aid in 1956 was accompanied by a 62% increase in waste treatment works construction over the previous 5-year average. With increased assistance under the 1961 amendments to the Federal Water Pollution Control Act and the 1962 Public Works Acceleration Act construction again expanded and reached a record high in 1963.

The added effect of the Public Works Acceleration Act ebbed with the exhaustion of funds and construction awards during 1964 returned to the 1961-1962 level under the Federal Water Pollution Control Act. They are currently continuing at the 1961-1962 level. The section of the Federal Water Pollution Control Act which provides grants for construction of waste treatment facilities will expire in 1967.

The Incentive Grant Program for Construction Is Being Administered Jointly by the Federal Water Pollution Control Administration and the State Water Pollution Control Agencies.

The Following Are the Participating Agencies:

ALABAMA Water Improvement Commission, Montgomery	INDIANA Stream Pollution Control Board, State Board of Health, Indianapolis	NEBRASKA State Board of Health, Helena	SOUTH CAROLINA State Water Pollution Control Authority, Columbia
ALASKA Division of Health, Department of Health and Welfare, Juneau	IOWA State Department of Health, Des Moines	NEVADA State Department of Health, Division of Public Health, Reno	SOUTH DAKOTA Committee on Water Pollution, Pierre
ARIZONA State Department of Health, Phoenix	KANSAS State Department of Health, Topeka	NEW HAMPSHIRE Water Pollution Commission, Concord	TENNESSEE Stream Pollution Control Board, Nashville
ARKANSAS State Water Pollution Control Commission, Little Rock	KENTUCKY Water Pollution Control Commission, State Board of Health, Frankfort	NEW JERSEY State Department of Health, Trenton	TEXAS State Department of Health, Austin
CALIFORNIA State Water Quality Control Board, Sacramento	LOUISIANA Division of Public Health, Engineering, State Board of Health, New Orleans	NEW MEXICO Department of Public Health, Santa Fe	UTAH Water Pollution Control Board, Salt Lake City
COLORADO State Department of Public Health, Denver	MAINE Water Improvement Commission, Department of Health and Welfare, Augusta	NEW YORK State Department of Health, Albany	VERMONT Department of Water Resources, Montpelier
CONNECTICUT Water Resources Commission, Hartford	MARYLAND State Department of Health, Baltimore	NORTH CAROLINA State Stream Sanitation Committee, Department of Water Resources, Raleigh	VIRGINIA State Water Control Board, Richmond
DELAWARE Water Pollution Commission, Dover	MASSACHUSETTS Department of Public Health, Boston	NORTH DAKOTA State Department of Health, Bismarck	VIRGIN ISLANDS Department of Health, Charlotte Amalie, St. Thomas
DISTRICT OF COLUMBIA Department of Public Health, Washington, D.C.	MICHIGAN Water Resources Commission, Lansing	OHIO Department of Health, Columbus	WASHINGTON State Pollution Control Commission, Olympia
FLORIDA State Board of Health, Jacksonville	MINNESOTA Water Pollution Control Commission, Minneapolis	OKLAHOMA State Department of Health, Oklahoma City	WEST VIRGINIA Division of Water Resources, Charleston
GEORGIA State Water Pollution Control Board, Atlanta	MISSISSIPPI State Board of Health, Jackson	OREGON State Board of Health, Portland	WISCONSIN State Committee on Water Pollution, Madison
GUAM Division of Public Health, Agaña	MISSOURI State Water Pollution Board, Jefferson City	PENNSYLVANIA Sanitary Water Board, Department of Health, Harrisburg	WYOMING State Department of Public Health, Cheyenne
HAWAII Department of Health, Honolulu	MONTANA State Board of Health, Helena	PUERTO RICO Department of Health, San Juan	
IDAHOO Department of Health, Boise		RHODE ISLAND Department of Health, Providence	
ILLINOIS State Sanitary Water Board, Springfield			

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WP-6 INFORMATION SERVICE

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